DDESB-KT (SMCAC-ESL (385/A)/6 Feb 91) 1st End Dr. Canada/tm/ 325-8624
SUBJECT: Use of Geotextile Stabilized Sand Walls as Barricades

Department of Defense Explosives Safety Board, 2461 Eisenhower Avenue, Alexandria, VA 22331-0600 12 February 1991

MEMORANDUM FOR COMMANDER, US ARMY DEFENSE AMMUNITION CENTER AND SCHOOL, ATTN: CLIFF DOYLE, SAVANNA, IL 61074-9639

1. The subject proposed concept for a geotextile stabilized sand wall barricade with side slopes exceeding 1.5 horizontal to 1 vertical has been reviewed with respect to explosives safety.

2. Criteria in DoD 6055.9-STD for stand-alone barricades primarily reflect design requirements peculiar to unstabilized earthen barricades. For these stand-alone barricades, the listed slope criteria are to provide an acceptable level of erosion control. When effective erosion control is provided, there is no default criteria for slope. For example, the definitive Corps of Engineers drawing, "Barricades" (DEF 149-30-01) lists several site adaptable, DDESB approved barricade designs with slopes exceeding 1.5 horizontal to 1 vertical.

3. The DoD 6055.9-STD criteria of three feet at the crown also reflect requirements peculiar to an earthen barricade. This thickness requirement assures that an earthen barricade will have sufficient mass and be robust enough to mitigate, and/or redirect high energy fragments without itself becoming a significant part of the fragment hazard.

4. A stand-alone, geotextile stabilized, sand wall barricade that satisfies lifetime requirements through validated erosion control techniques and is at least three feet thick at its crown, is acceptable. Please provide this office with construction drawings and data, when they are available, that validates acceptable erosion control.

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